# 37629.TXT SEQUENCE LISTING

<110>	Josef Prassler Yvonne Stark	
<120>	Novel Tricistronic Vectors and Uses Therefor	
<130>	37629-0064us	
<140>		
<141>		
<150>	PCT/IB03/03681	
<151>	2003-07-30	
<150>	60/399,150	
<151>	2002-07-30	
<160>	9	
<170>	PatentIn version 3.1	
<210>	1 .	
<211>	86	
<212>	DNA	
<213>	artificial sequence	
<220>		
<223>	synthetic construct	
<220>		
<221>	misc_feature	
<222>	(1)(86)	
<223>	synthetic construct	
<400> ctagta	1 tacg agggcaaaaa atgaaaaaac tgctgttcgc gattccgctg gtggtgccgt	60
tctata	gcca tagcgactac tgcgac	86
<210>	2	
<211>	82	
<212>	DNA	
<213>	artificial sequence	
<220>		
<223>	synthetic construct	

<220>						
<221>	misc_feature					
<222>	(1)(82)<223> sy	nthetic/	construct			
<400> gtcgca	2 gtag tcgctatggc tat	agaacgg	caccaccagc	ggaatcgcga	acagcagttt	60
tttcatt	tttt tgccctcgta ta					82
<210>	3				·	
<211>	5049					
<212>	DNA			`		
<213>	artificial sequenc	:e				•
<220>						
<223>	synthetic construc	:t				
<220>						
<221>	misc_feature					
<222>	(1)(5049)					
<223>	synthetic construc	:t				
<400> ctagata	3 nacg agggcaaaaa atg	jaaaaaga	cagctatcgc	gattgcagtg	gcactggctg	60
gtttcgc	tac cgtagcgcag gcc	gatatcg	tgctgaccca	gagcccggcg	accctgagcc	120
tgtctc	ggg cgaacgtgcg acc	ctgagct	gcagagcgag	ccagtctgtt	tctcgttctt	180
atctggd	ttg gtaccagcag aaa	ccaggtc	aagcaccgcg	tctattaatt	tatggtgctt	240
ctcgtcg	tgc aactggggtc ccg	gcgcgtt	ttagcggctc	tggatccggc	acggatttta	300
ccctgad	cat tagcagcctg gaa	cctgaag	actttgcgac	ttattattgc	cagcagcgtg	360
gtaatta	ittc tattaccttt ggc	cagggta	cgaaagttga	aattaaacgt	acggtggctg	420
ctccgag	cgt gtttatttt ccg	ccgagcg	atgaacaact	gaaaagcggc	acggcgagcg	480
tggtgtg	cct gctgaacaac ttt	tatccgc	gtgaagcgaa	agttcagtgg	aaagtagaca	540
acgcgct	gca aagcggcaac agc	caggaaa	gcgtgaccga	acaggatagc	aaagatagca	600
cctatto	tct gagcagcacc ctg	accctga	gcaaagcgga	ttatgaaaaa	cataaagtgt	660
atgcgtg	cga agtgacccat caa	ggtctga	gcagcccggt	gactaaatct	tttaatcgtg	720
gcgaggc	ctg ataagcatgc gta	ggagaaa	ataaaatgaa	acaaagcact	attgcactgg	780
cactctt	acc gttgctcttc acc	cctgtta	ccaaagccca	ggtgcaattg	gtggaaagcg	840
gcggcgg	cct ggtgcaaccg ggc	ggcagcc	tgcgtctgag	ctgcgcggcc	tccggattta	900

ccttttcttc	ttatggtggt	aattgggtgc	gccaagcccc		ctcgagtggg	960
tgagcggtat	ccattattct	ggtagctcta	cctattatgc	ggatagcgtg	aaaggccgtt	1020
ttaccatttc	acgtgataat	tcgaaaaaca	ccctgtatct	gcaaatgaac	agcctgcgtg	1080
cggaagatac	ggccgtgtat	tattgcgcgc	gtgctcttca	taagtgggct	ggttggggtt	1140
ttgatcattg	gggccaaggc	accctggtga	cggttagctc	agcgtcgacc	aaaggtccaa	1200
gcgtgtttcc	gctggctccg	agcagcaaaa	gcaccagcgg	cggcacggct	gccctgggct	1260
gcctggttaa	agattatttc	ccggaaccag	tcaccgtgag	ctggaacagc	ggggcgctga	1320
ccagcggcgt	gcataccttt	ccggcggtgc	tgcaaagcag	cggcctgtat	agcctgagca	1380
gcgttgtgac	cgtgccgagc	agcagcttag	gcactcagac	ctatatttgc	aacgtgaacc	1440
ataaaccgag	caacaccaaa	gtggataaaa	aagtggaacc	gaaaagcgaa	ttcccagggg	1500
ggagcggagg	cgcgccgcac	catcatcacc	atcactgctg	ataagcttga	cctgtgaagt	1560
gaaaaatggc	gcagattgtg	cgacattttt	tttgtctgcc	gtttaatgaa	attgtaaacg	1620
ttaatatttt	gttaaaattc	gcgttaaatt	tttgttaaat	cagctcattt	tttaaccaat	1680
aggccgaaat	cggcaaaatc	ccttataaat	caaaagaata	gaccgagata	gggttgagtg	1740
ttgttccagt	ttggaacaag	agtccactat	taaagaacgt	ggactccaac	gtcaaagggc	1800
gaaaaaccgt	ctatcagggc	gatggcccac	tacgagaacc	atcaccctaa	tcaagttttt	1860
tggggtcgag	gtgccgtaaa	gcactaaatc	ggaaccctaa	agggagcccc	cgatttagag	1920
cttgacgggg	aaagccggcg	aacgtggcga	gaaaggaagg	gaagaaagcg	aaaggagcgg	1980
gcgctagggc	gctggcaagt	gtagcggtca	cgctgcgcgt	aaccaccaca	cccgccgcgc	2040
ttaatgcgcc	gctacagggc	gcgtgctagc	catgtgagca	aaaggccagc	aaaaggccag	2100
gaaccgtaaa	aaggccgcgt	tgctggcgtt	tttccatagg	ctccgccccc	ctgacgagca	2160
tcacaaaaat	cgacgctcaa	gtcagaggtg	gcgaaacccg	acaggactat	aaagatacca	2220
ggcgtttccc	cctggaagct	ccctcgtgcg	ctctcctgtt	ccgaccctgc	cgcttaccgg	2280
atacctgtcc	gcctttctcc	cttcgggaag	cgtggcgctt	tctcatagct	cacgctgtag	2340
gtatctcagt	tcggtgtagg	tcgttcgctc	caagctgggc	tgtgtgcacg	aacccccgt	2400
tcagtccgac	cgctgcgcct	tatccggtaa	ctatcgtctt	gagtccaacc	cggtaagaca	2460
cgacttatcg	ccactggcag	cagccactgg	taacaggatt	agcagagcga	ggtatgtagg	2520
cggtgctaca	gagttcttga	agtggtggcc	taactacggc	tacactagaa	gaacagtatt	2580
tggtatctgc	gctctgctgt	agccagttac	cttcggaaaa	agagttggta	gctcttgatc	2640
cggcaaacaa	accaccgctg	gtagcggtgg	tttttttgtt	tgcaagcagc	agattacgcg	2700
cagaaaaaaa	ggatctcaag	aagatccttt	gatcttttct	acggggtctg	acgctcagtg	2760
gaacgaaaac	tcacgttaag	ggattttggt	cagatctagc Page		taagggcacc	2820

aataactgcc ttaaaaa	aaat tacgccccgc	cctgccactc	atcgcagtac	tgttgtaatt	2880
cattaagcat tctgcc	gaca tggaagccat	cacaaacggc	atgatgaacc	tgaatcgcca	2940
gcggcatcag cacctt	gtcg ccttgcgtat	aatatttgcc	catagtgaaa	acgggggcga	3000
agaagttgtc catatt	ggct acgtttaaat	caaaactggt	gaaactcacc	cagggattgg	3060
ctgagacgaa aaacata	attc tcaataaaco	ctttagggaa	ataggccagg	ttttcaccgt	3120
aacacgccac atcttg	cgaa tatatgtgta	gaaactgccg	gaaatcgtcg	tggtattcac	3180
tccagagcga tgaaaa	cgtt tcagtttgct	catggaaaac	ggtgtaacaa	gggtgaacac	3240
tatcccatat caccago	ctca ccgtctttca	ttgccatacg	gaactccggg	tgagcattca	3300
tcaggcgggc aagaat	gtga ataaaggccg	gataaaactt	gtgcttattt	ttctttacgg	3360
tctttaaaaa ggccgta	aata tccagctgaa	cggtctggtt	ataggtacat	tgagcaactg	3420
actgaaatgc ctcaaaa	atgt tctttacgat	gccattggga	tatatcaacg	gtggtatatc	3480
cagtgatttt tttctc	catt ttagcttcct	tagctcctga	aaatctcgat	aactcaaaaa	3540
atacgcccgg tagtga	tctt atttcattat	ggtgaaagtt	ggaacctcac	ccgacgtcta	3600
atgtgagtta gctcact	tcat taggcaccco	aggctttaca	ctttatgctt	ccggctcgta	3660
tgttgtgtgg aattgt	gagc ggataacaat	ttcacacagg	aaacagctat	gaccatgatt	3720
acgaatttct agtata	cgag ggcaaaaaat	gaaaaaactg	ctgttcgcga	ttccgctggt	3780
ggtgccgttc tatagco	cata gcgactactg	cgacatcgag	tttgcagaaa	cagttgaaag	3840
ttgtttagca aaaccc	cata cagaaaatto	atttactaac	gtctggaaag	acgacaaaac	3900
tttagatcgt tacgcta	aact atgagggctg	tctgtggaat	gctacaggcg	ttgtagtttg	3960
tactggtgac gaaact	cagt gttacggtac	atgggttcct	attgggcttg	ctatccctga	4020
aaatgagggt ggtggc	tctg agggtggcgg	ttctgagggt	ggcggctctg	agggtggcgg	4080
tactaaacct cctgag	tacg gtgatacaco	tattccgggc	tatacttata	tcaaccctct	4140
cgacggcact tatccg	cctg gtactgagca	aaaccccgct	aatcctaatc	cttctcttga	4200
ggagtctcag cctctta	aata ctttcatgtt	tcagaataat	aggttccgaa	ataggcaggg	4260
ggcattaact gtttata	acgg gcactgttac	tcaaggcact	gaccccgtta	aaacttatta	4320
ccagtacact cctgta	tcat caaaagccat	gtatgacgct	tactggaacg	gtaaattcag	4380
agactgcgct ttccat	tctg gctttaatga	ggatccattc	gtttgtgaat	atcaaggcca	4440
atcgtctgac ctgcct	caac ctcctgtcaa	tgctggcggc	ggctctggtg	gtggttctgg	4500
tggcggctct gagggt	ggcg gctctgaggg	tggcggttct	gagggtggcg	gctctgaggg	4560
tggcggttcc ggtggcg	ggct ccggttccgg	tgattttgat	tatgaaaaaa	tggcaaacgc	4620
taataagggg gctatga	accg aaaatgccga	tgaaaacgcg	ctacagtctg	acgctaaagg	4680

#### 37629.TXT caaacttgat tctgtcgcta ctgattacgg tgctgctatc gatggtttca ttggtgacgt 4740 ttccggcctt gctaatggta atggtgctac tggtgatttt gctggctcta attcccaaat 4800 ggctcaagtc ggtgacggtg ataattcacc tttaatgaat aatttccgtc aatatttacc 4860 ttctttgcct cagtcggttg aatgtcgccc ttatgtcttt ggcgctggta aaccatatga 4920 attitctatt gattgtgaca aaataaactt attccgtggt gtctttgcgt ttcttttata 4980 tgttgccacc tttatgtatg tattttcgac gtttgctaac atactgcgta ataaggagtc 5040 5049 ttaagtaat <210> <211> 3563 <212> DNA <213> artificial sequence <220> <223> synthetic construct <220> <221> misc\_feature <222> (1)..(3563)<223> synthetic construct <400> tctagagcat gcgtaggaga aaataaaatg aaacaaagca ctattgcact ggcactctta 60 ccgttgctct tcacccctgt taccaaagcc gactacaaag atgaagtgca attgaaagaa 120 agcggcccgg ccctggtgaa accgacccaa accctgaccc tgacctgtac cttttccgga 180 tttagcctgt ccacgtctgg cgttggcgtg ggctggattc gccagccgcc tgggaaagcc 240 ctcgagtggc tggctctgat tgattgggat gatgataagt attatagcac cagcctgaaa 300 acgcgtctga ccattagcaa agatacttcg aaaaatcagg tggtgctgac tatgaccaac 360 atggacccgg tggatacggc cacctattat tgcgcgcgtt ttgatccttt ttttgattct 420 ttttttgatt attggggcca aggcaccctg gtgacggtta gctcagcggg tggcggttct 480 ggCggCggtg ggagCggtgg cggtggttct ggCggtggtg gttccgatat cgtgctgacc 540 cagccgcctt cagtgagtgg cgcaccaggt cagcgtgtga ccatctcgtg tagcggcagc 600 agcagcaaca ttggcagcaa ctatgtgagc tggtaccagc agttgcccgg gacggcgccg 660 720 aaactgctga tttatgataa caaccagcgt ccctcaggcg tgccggatcg ttttagcgga tccaaaagcg gcaccagcgc gagccttgcg attacgggcc tgcaaagcga agacgaagcg 780 gattattatt gccagagcta tgaccagaat gctcttgttg aggtgtttgg cggcggcacg Page 5 840

aagttaaccg	ttcttggcca	ggaattcgag	cagaagctga	tctctgagga	ggatctgaac	900
tagggtggtg	gctctggttc	cggtgatttt	gattatgaaa	agatggcaaa	cgctaataag	960
ggggctatga	ccgaaaatgc	cgatgaaaac	gcgctacagt	ctgacgctaa	aggcaaactt	1020
gattctgtcg	ctactgatta	cggtgctgct	atcgatggtt	tcattggtga	cgtttccggc	1080
cttgctaatg	gtaatggtgc	tactggtgat	tttgctggct	ctaattccca	aatggctcaa	1140
gtcggtgacg-	gtgataattc	acctttaatg	aataatttcc	gtcaatattt	accttccctc	1200
cctcaatcgg	ttgaatgtcg	cccttttgtc	tttggcgctg	gtaaaccata	tgaattttct	1260
attgattgtg	acaaaataaa	cttattccgt	ggtgtctttg	cgtttcttt	atatgttgcc	1320
acctttatgt	atgtatttc	tacgtttgct	aacatactgc	gtaataagga	gtcttgataa	1380
gcttgacctg	tgaagtgaaa	aatggcgcag	attgtgcgac	atttttttg	tctgccgttt	1440
aatgaaattg	taaacgttaa	tattttgtta	aaattcgcgt	taaatttttg	ttaaatcagc	1500
tcatttttta	accaataggc	cgaaatcggc	aaaatccctt	ataaatcaaa	agaatagacc	1560
gagatagggt	tgagtgttgt	tccagtttgg	aacaagagtc	cactattaaa	gaacgtggac	1620
tccaacgtca	aagggcgaaa	aaccgtctat	cagggcgatg	gcccactacg	agaaccatca	1680
ccctaatcaa	gttttttggg	gtcgaggtgc	cgtaaagcac	taaatcggaa	ccctaaaggg	1740
agcccccgat	ttagagcttg	acggggaaag	ccggcgaacg	tggcgagaaa	ggaagggaag	1800
aaagcgaaag	gagcgggcgc	tagggcgctg	gcaagtgtag	cggtcacgct	gcgcgtaacc	1860
accacacccg	ccgcgcttaa	tgcgccgcta	cagggcgcgt	gctagccatg	tgagcaaaag	1920
gccagcaaaa	ggccaggaac	cgtaaaaagg	ccgcgttgct	ggcgttttc	cataggctcc	1980
gcccccctga	cgagcatcac	aaaaatcgac	gctcaagtca	gaggtggcga	aacccgacag	2040
gactataaag	ataccaggcg	tttcccctg	gaagctccct	cgtgcgctct	cctgttccga	2100
ccctgccgct	taccggatac	ctgtccgcct	ttctcccttc	gggaagcgtg	gcgctttctc	2160
atagctcacg	ctgtaggtat	ctcagttcgg	tgtaggtcgt	tcgctccaag	ctgggctgtg	2220
tgcacgaacc	ccccgttcag	tccgaccgct	gcgccttatc	cggtaactat	cgtcttgagt	2280
ccaacccggt	aagacacgac	ttatcgccac	tggcagcagc	cactggtaac	aggattagca	2340
gagcgaggta	tgtaggcggt	gctacagagt	tcttgaagtg	gtggcctaac	tacggctaca	2400
ctagaagaac	agtatttggt	atctgcgctc	tgctgtagcc	agttaccttc	ggaaaaagag	2460
ttggtagctc	ttgatccggc	aaacaaacca	ccgctggtag	cggtggtttt	tttgtttgca	2520
agcagcagat	tacgcgcaga	aaaaaaggat	ctcaagaaga	tcctttgatc	ttttctacgg	2580
ggtctgacgc	tcagtggaac	gaaaactcac	gttaagggat	tttggtcaga	tctagcacca	2640
ggcgtttaag	ggcaccaata	actgccttaa	aaaaattacg	ccccgccctg	ccactcatcg	2700

37629.TXT	
cagtactgtt gtaattcatt aagcattctg ccgacatgga agccatcaca aacggcatga	2760
tgaacctgaa tcgccagcgg catcagcacc ttgtcgcctt gcgtataata tttgcccata	2820
gtgaaaacgg gggcgaagaa gttgtccata ttggctacgt ttaaatcaaa actggtgaaa	2880
ctcacccagg gattggctga gacgaaaaac atattctcaa taaacccttt agggaaatag	2940
gccaggtttt caccgtaaca cgccacatct tgcgaatata tgtgtagaaa ctgccggaaa	3000
tcgtcgtggt attcactcca gagcgatgaa aacgtttcag tttgctcatg gaaaacggtg	3060
taacaagggt gaacactatc ccatatcacc agctcaccgt ctttcattgc catacggaac	3120
tccgggtgag cattcatcag gcgggcaaga atgtgaataa aggccggata aaacttgtgc	3180
ttatttttct ttacggtctt taaaaaggcc gtaatatcca gctgaacggt ctggttatag	3240
gtacattgag caactgactg aaatgcctca aaatgttctt tacgatgcca ttgggatata	3300
tcaacggtgg tatatccagt gattttttc tccattttag cttccttagc tcctgaaaat	3360
ctcgataact caaaaaatac gcccggtagt gatcttattt cattatggtg aaagttggaa	3420
cctcacccga cgtctaatgt gagttagctc actcattagg caccccaggc tttacacttt	3480
atgcttccgg ctcgtatgtt gtgtggaatt gtgagcggat aacaatttca cacaggaaac	3540
agctatgacc atgattacga att	3563
<210> 5	
<211> 4431	
<212> DNA	
<213> artificial sequence	
<220>	
<223> synthetic construct	
SZZDZ SVIITIBUTU CONSUMULI	
•	
<220>	
<220> <221> misc_feature	
<220> <221> misc_feature <222> (1)(4431)	
<pre>&lt;220&gt; &lt;221&gt; misc_feature &lt;222&gt; (1)(4431) &lt;223&gt; synthetic construct</pre>	
<220> <221> misc_feature <222> (1)(4431)	60
<pre>&lt;220&gt; &lt;221&gt; misc_feature &lt;222&gt; (1)(4431) &lt;223&gt; synthetic construct &lt;400&gt; 5</pre>	60 120

ctttagatcg ttacgctaac tatgagggct gtctgtggaa tgctacaggc gttgtagttt

gtactggtga cgaaactcag tgttacggta catgggttcc tattgggctt gctatccctg

aaaatgaggg tggtggctct gagggtggcg gttctgaggg tggcggctct gagggtggcg Page 7 240

300

360

gtactaaacc	tcctgagtac	ggtgatacac	ctattccggg	ctatacttat	atcaaccctc	420
tcgacggcac	ttatccgcct	ggtactgagc	aaaaccccgc	taatcctaat	ccttctcttg	480
aggagtctca	gcctcttaat	actttcatgt	ttcagaataa	taggttccga	aataggcagg	540
gggcattaac	tgtttatacg	ggcactgtta	ctcaaggcac	tgaccccgtt	aaaacttatt	600
accagtacac	tcctgtatca	tcaaaagcca	tgtatgacgc	ttactggaac	ggtaaattca	660
gagactgcgc	tttccattct	ggctttaatg	aggatccatt	cgtttgtgaa	tatcaaggcc	720
aatcgtctga	cctgcctcaa	cctcctgtca	atgctggcgg	cggctctggt	ggtggttctg	780
gtggcggctc	tgagggtggc	ggctctgagg	gtggcggttc	tgagggtggc	ggctctgagg	840
gtggcggttc	cggtggcggc	tccggttccg	gtgattttga	ttatgaaaaa	atggcaaacg	900
ctaataaggg	ggctatgacc	gaaaatgccg	atgaaaacgc	gctacagtct	gacgctaaag	960
gcaaacttga	ttctgtcgct	actgattacg	gtgctgctat	cgatggtttc	attggtgacg	1020
tttccggcct	tgctaatggt	aatggtgcta	ctggtgattt	tgctggctct	aattcccaaa	1080
tggctcaaġt	cggtgacggt	gataattcac	ctttaatgaa	taatttccgt	caatatttac	1140
cttctttgcc	tcagtcggtt	gaatgtcgcc	cttatgtctt	tggcgctggt	aaaccatatg	1200
aattttctat	tgattgtgac	aaaataaact	tattccgtgg	tgtctttgcg	tttcttttat	1260
atgttgccac	ctttatgtat	gtattttcga	cgtttgctaa	catactgcgt	aataaggagt	1320
cttaaggcct	gataagcatg	cgtaggagaa	aataaaatga	aacaaagcac	tattgcactg	1380
gcactcttac	cgttgctctt	cacccctgtt	accaaagccg	actacaaaga	tgaagtgcaa	1440
ttgaaagaaa	gcggcccggc	cctggtgaaa	ccgacccaaa	ccctgaccct	gacctgtacc	1500
ttttccggat	ttagcctgtc	cacgtctggc	gttggcgtgg	gctggattcg	ccagccgcct	1560
gggaaagccc	tcgagtggct	ggctctgatt	gattgggatg	atgataagta	ttatagcacc	1620
agcctgaaaa	cgcgtctgac	cattagcaaa	gatacttcga	aaaatcaggt	ggtgctgact	1680
atgaccaaca	tggacccggt	ggatacggcc	acctattatt	gcgcgcgttt	tgatcctttt	1740
tttgattctt	tttttgatta	ttggggccaa	ggcaccctgg	tgacggttag	ctcagcgggt	1800
ggcggttctg	gcggcggtgg	gagcggtggc	ggtggttctg	gcggtggtgg	ttccgatatc	1860
gtgctgaccc	agccgccttc	agtgagtggc	gcaccaggtc	agcgtgtgac	catctcgtgt	1920
agcggcagca	gcagcaacat	tggcagcaac	tatgtgagct	ggtaccagca	gttgcccggg	1980
acggcgccga	aactgctgat	ttatgataac	aaccagcgtc	cctcaggcgt	gccggatcgt	2040
tttagcggat	ccaaaagcgg	caccagcgcg	agccttgcga	ttacgggcct	gcaaagcgaa	2100
gacgaagcgg	attattattg	ccagagctat	gaccagaatg	ctcttgttga	ggtgtttggc	2160
ggcggcacga	agttaaccgt	tcttggccag	gaattcccag	gggggagcgg	aggcgcgccg	2220

caccatcatc	accatcactg	ctgataagct	tgacctgtga	agtgaaaaat	ggcgcagatt	2280
gtgcgacatt	ttttttgtct	gccgtttaat	gaaattgtaa	acgttaatat	tttgttaaaa	2340
ttcgcgttaa	atttttgtta	aatcagctca	ttttttaacc	aataggccga	aatcggcaaa	2400
atcccttata	aatcaaaaga	atagaccgag	atagggttga	gtgttgttcc	agtttggaac	2460
aagagtccac	tattaaagaa	cgtggactcc	aacgtcaaag	ggcgaaaaac	cgtctatcag	2520
ggcgatggcc	cactacgaga	accatcaccc	taatcaagtt	ttttggggtc	gaggtgccgt	2580
aaagcactaa	atcggaaccc	taaagggagc	ccccgattta	gagcttgacg	gggaaagccg	2640
gcgaacgtgg	cgagaaagga	agggaagaaa	gcgaaaggag	cgggcgctag	ggcgctggca	2700
agtgtagcgg	tcacgctgcg	cgtaaccacc	acacccgccg	cgcttaatgc	gccgctacag	2760
ggcgcgtgct	agccatgtga	gcaaaaggcc	agcaaaaggc	caggaaccgt	aaaaaggccg	2820
cgttgctggc	gtttttccat	aggctccgcc	cccctgacga	gcatcacaaa	aatcgacgct	2880
caagtcagag	gtggcgaaac	ccgacaggac	tataaagata	ccaggcgttt	cccctggaa	2940
gctccctcgt	gcgctctcct	gttccgaccc	tgccgcttac	cggatacctg	tccgcctttc	3000
tcccttcggg	aagcgtggcg	ctttctcata	gctcacgctg	taggtatctc	agttcggtgt	3060
aggtcgttcg	ctccaagctg	ggctgtgtgc	acgaaccccc	cgttcagtcc	gaccgctgcg	3120
ccttatccgg	taactatcgt	cttgagtcca	acccggtaag	acacgactta	tcgccactgg	3180
cagcagccac	tggtaacagg	attagcagag	cgaggtatgt	aggcggtgct	acagagttct	3240
tgaagtggtg	gcctaactac	ggctacacta	gaagaacagt	atttggtatc	tgcgctctgc	3300
tgtagccagt	taccttcgga	aaaagagttg	gtagctcttg	atccggcaaa	caaaccaccg	3360
ctggtagcgg	tggtttttt	gtttgcaagc	agcagattac	gcgcagaaaa	aaaggatctc	3420
aagaagatcc	tttgatcttt	tctacggggt	ctgacgctca	gtggaacgaa	aactcacgtt	3480
aagggatttt	ggtcagatct	agcaccaggc	gtttaagggc	accaataact	gccttaaaaa	3540
aattacgccc	cgccctgcca	ctcatcgcag	tactgttgta	attcattaag	cattctgccg	3600
acatggaagc	catcacaaac	ggcatgatga	acctgaatcg	ccagcggcat	cagcaccttg	3660
tcgccttgcg	tataatattt	gcccatagtg	aaaacggggg	cgaagaagtt	gtccatattg	3720
gctacgttta	aatcaaaact	ggtgaaactc	acccagggat	tggctgagac	gaaaaacata	3780
ttctcaataa	accctttagg	gaaataggcc	aggttttcac	cgtaacacgc	cacatcttgc	3840
gaatatatgt	gtagaaactg	ccggaaatcg	tcgtggtatt	cactccagag	cgatgaaaac	3900
gtttcagttt	gctcatggaa	aacggtgtaa	caagggtgaa	cactatccca	tatcaccagc	3960
tcaccgtctt	tcattgccat	acggaactcc	gggtgagcat	tcatcaggcg	ggcaagaatg	4020
tgaataaagg	ccggataaaa	cttgtgctta	tttttcttta	cggtctttaa	aaaggccgta	4080
atatccagct	gaacggtctg	gttataggta	cattgagcaa Page	ctgactgaaa 9	tgcctcaaaa	4140

tgttctttac gatgccattg ggatatatca acggtggtat atccagtgat tttttctcc 4200

•	3 3 3 3 3 3	33 33	<b>J J</b>		
att	tagett cettagetee tgaaaatete	gataactcaa	aaaatacgcc	cggtagtgat	4260
ctt	atttcat tatggtgaaa gttggaacct	cacccgacgt	ctaatgtgag	ttagctcact	4320
cat	aggcac cccaggcttt acactttatg	cttccggctc	gtatgttgtg	tggaattgtg	4380
agc	ggataac aatttcacac aggaaacago	tatgaccatg	attacgaatt	t	4431
21					
<210					
<21					
<21					
<21	<pre>B&gt; artificial sequence</pre>				
<220	· ·				
<22	> synthetic construct				
<220	>				
<22	<pre>.&gt; misc_feature</pre>				
<222	> (1)(4154)				
<223	> synthetic construct				
<400 tcta	> 6 gataac gagggcaaaa aatgaaaaag	acagctatcg	cgattgcagt	ggcactggct	60
ggti	tcgcta ccgtagcgca ggccgatatc	gtgctgaccc	agccgccttc	agtgagtggc	120
gca	caggtc agcgtgtgac catctcgtgt	agcggcagca	gcagcaacat	tggcagcaac	180
tato	tgagct ggtaccagca gttgcccggg	acggcgccga	aactgctgat	ttatgataac	240
aaco	agcgtc cctcaggcgt gccggatcgt	tttagcggat	ccaaaagcgg	caccagcgcg	300
agco	ttgcga ttacgggcct gcaaagcgaa	gacgaagcgg	attattattg	ccagagctat	360
gaco	agaatg ctcttgttga ggtgtttggc	ggcggcacga	agttaaccgt	tcttggccag	420
ccga	aagccg caccgagtgt gacgctgttt	ccgccgagca	gcgaagaatt	gcaggcgaac	480
aaag	cgaccc tggtgtgcct gattagcgac	ttttatccgg	gagccgtgac	agtggcctgg	540
aagg	cagata gcagccccgt caaggcggga	gtggagacca	ccacaccctc	caaacaaagc	600
aaca	acaagt acgcggccag cagctatctg	agcctgacgc	ctgagcagtg	gaagtcccac	660
agaa	gctaca gctgccaggt cacgcatgag	gggagcaccg	tggaaaaaac	cgttgcgccg	720
acto	aggcct gataagcatg cgtaggagaa	aataaaatga	aacaaagcac	tattgcactg	780
gcad	tcttac cgttgctctt cacccctgtt	accaaagccc	aggtgcaatt	gaaagaaagc	840
ggco	cggccc tggtgaaacc gacccaaacc	ctgaccctga	cctgtacctt	ttccggattt	900

agcctgtcca	cgtctggcgt	tggcgtgggc	tggattcgcc	agccgcctgg	gaaagccctc	960
gagtggctgg	ctctgattga	ttgggatgat	gataagtatt	atagcaccag	cctgaaaacg	1020
cgtctgacca	ttagcaaaga	tacttcgaaa	aatcaggtgg	tgctgactat	gaccaacatg	1080
gacccggtgg	atacggccac	ctattattgc	gcgcgttttg	atccttttt	tgattctttt	1140
tttgattatt	ggggccaagg	caccctggtg	acggttagct	cagcgtcgac	caaaggtcca	1200
agcgtgtttc	cgctggctcc	gagcagcaaa	agcaccagcg	gcggcacggc	tgccctgggc	1260
tgcctggtta	aagattattt	cccggaacca	gtcaccgtga	gctggaacag	cggggcgctg	1320
accagcggcg	tgcatacctt	tccggcggtg	ctgcaaagca	gcggcctgta	tagcctgagc	1380
agcgttgtga	ccgtgccgag	cagcagctta	ggcactcaga	cctatatttg	caacgtgaac	1440
cataaaccga	gcaacaccaa	agtggataaa	aaagtggaac	cgaaaagcga	attcggggga ·	1500
gggagcggga	gcggtgattt	tgattatgaa	aagatggcaa	acgctaataa	gggggctatg	1560
accgaaaatg	ccgatgaaaa	cgcgctacag	tctgacgcta	aaggcaaact	tgattctgtc	1620
gctactgatt	acggtgctgc	tatcgatggt	ttcattggtg	acgtttccgg	ccttgctaat	1680
ggtaatggtg	ctactggtga	ttttgctggc	tctaattccc	aaatggctca	agtcggtgac	1740
ggtgataatt	cacctttaat	gaataatttc	cgtcaatatt	taccttccct	ccctcaatcg	1800
gttgaatgtc	gcccttttgt	ctttggcgct	ggtaaaccat	atgaattttc	tattgattgt	1860
gacaaaataa	acttattccg	tggtgtcttt	gcgtttcttt	tatatgttgc	cacctttatg	1920
tatgtatttt	ctacgtttgc	taacatactg	cgtaataagg	agtcttgata	agcttgacct	1980
gtgaagtgaa	aaatggcgca	gattgtgcga	cattttttt	gtctgccgtt	taatgaaatt	2040
gtaaacgtta	atattttgtt	aaaattcgcg	ttaaattttt	gttaaatcag	ctcattttt	2100
aaccaatagg	ccgaaatcgg	caaaatccct	tataaatcaa	aagaatagac	cgagataggg	2160
ttgagtgttg	ttccagtttg	gaacaagagt	ccactattaa	agaacgtgga	ctccaacgtc	2220
aaagggcgaa	aaaccgtcta	tcagggcgat	ggcccactac	gagaaccatc	accctaatca	2280
agttttttgg	ggtcgaggtg	ccgtaaagca	ctaaatcgga	accctaaagg	gagcccccga	2340
tttagagctt	gacggggaaa	gccggcgaac	gtggcgagaa	aggaagggaa	gaaagcgaaa	2400
ggagcgggcg	ctagggcgct	ggcaagtgta	gcggtcacgc	tgcgcgtaac	caccacaccc	2460
gccgcgctta	atgcgccgct	acagggcgcg	tgctagccat	gtgagcaaaa	ggccagcaaa	2520
aggccaggaa	ccgtaaaaag	gccgcgttgc	tggcgttttt	ccataggctc	cgccccctg	2580
acgagcatca	caaaaatcga	cgctcaagtc	agaggtggcg	aaacccgaca	ggactataaa	2640
gataccaggc	gtttcccct	ggaagctccc	tcgtgcgctc	tcctgttccg	accctgccgc	2700
ttaccggata	cctgtccgcc	tttctccctt	cgggaagcgt	ggcgctttct	catagctcac	2760
gctgtaggta	tctcagttcg	gtgtaggtcg		gctgggctgt 11	gtgcacgaac	2820

ccccgttca	gtccgaccgc	tgcgccttat	ccggtaacta	tcgtcttgag	tccaacccgg	2880
taagacacga	cttatcgcca	ctggcagcag	ccactggtaa	caggattagc	agagcgaggt	2940
atgtaggcgg	tgctacagag	ttcttgaagt	ggtggcctaa	ctacggctac	actagaagaa	3000
cagtatttgg	tatctgcgct	ctgctgtagc	cagttacctt	cggaaaaaga	gttggtagct	3060
cttgatccgg	caaacaaacc	accgctggta	gcggtggttt	ttttgtttgc	aagcagcaga	3120
ttacgcgcag	aaaaaagga	tctcaagaag	atcctttgat	cttttctacg	gggtctgacg	3180
ctcagtggaa	cgaaaactca	cgttaaggga	ttttggtcag	atctagcacc	aggcgtttaa	3240
gggcaccaat	aactgcctta	aaaaaattac	gccccgccct	gccactcatc	gcagtactgt	3300
tgtaattcat	taagcattct	gccgacatgg	aagccatcac	aaacggcatg	atgaacctga	3360
atcgccagcg	gcatcagcac	cttgtcgcct	tgcgtataat	atttgcccat	agtgaaaacg	3420
ggggcgaaga	agttgtccat	attggctacg	tttaaatcaa	aactggtgaa	actcacccag	3480
ggattggctg	agacgaaaaa	catattctca	ataaaccctt	tagggaaata	ggccaggttt	3540
tcaccgtaac	acgccacatc	ttgcgaatat	atgtgtagaa	actgccggaa	atcgtcgtgg	3600
tattcactcc	agagcgatga	aaacgtttca	gtttgctcat	ggaaaacggt	gtaacaaggg	3660
tgaacactat	cccatatcac	cagctcaccg	tctttcattg	ccatacggaa	ctccgggtga	3720
gcattcatca	ggcgggcaag	aatgtgaata	aaggccggat	aaaacttgtg	cttatttttc	3780
tttacggtct	ttaaaaaggc	cgtaatatcc	agctgaacgg	tctggttata	ggtacattga	3840
gcaactgact	gaaatgcctc	aaaatgttct	ttacgatgcc	attgggatat	atcaacggtg	3900
gtatatccag	tgatttttt	ctccatttta	gcttccttag	ctcctgaaaa	tctcgataac	3960
tcaaaaaata	cgcccggtag	tgatcttatt	tcattatggt	gaaagttgga	acctcacccg	4020
acgtctaatg	tgagttagct	cactcattag	gcaccccagg	ctttacactt	tatgcttccg	4080
gctcgtatgt	tgtgtggaat	tgtgagcgga	taacaatttc	acacaggaaa	cagctatgac	4140
catgattacg	aatt					4154

<210> 7

<211> 5079

<212> DNA

<213> artificial sequence

<220>

<223> synthetic construct

<220>

<221> misc\_feature

<222> (1)..(5079)

<223> synthetic construct

<400> 7 60 cagcagttgc ccgggacggc gccgaaactg ctgatttatg ataacaacca gcgtccctca 120 ggcgtgccgg atcgttttag cggatccaaa agcggcacca gcgcgagcct tgcgattacg ggcctgcaaa gcgaagacga agcggattat tattgccaga gctatgacca gaatgctctt 180 gttgaggtgt ttggcggcgg cacgaagtta accgttcttg gccagccgaa agccgcaccg 240 300 agtgtgacgc tgtttccgcc gagcagcgaa gaattgcagg cgaacaaagc gaccctggtg tgcctgatta gcgactttta tccgggagcc gtgacagtgg cctggaaggc agatagcagc 360 cccgtcaagg cgggagtgga gaccaccaca ccctccaaac aaagcaacaa caagtacgcg 420 gccagcagct atctgagcct gacgcctgag cagtggaagt cccacagaag ctacagctgc 480 caggtcacgc atgaggggag caccgtggaa aaaaccgttg cgccgactga ggcctctcca 540 600 ggggggagcg gaggcgcgcc gcaccatcat caccatcact gctgataata tgcatgcgta ggagaaaata aaatgaaaca aagcactatt gcactggcac tcttaccgtt gctcttcacc 660 720 cctgttacca aagcccaggt gcaattgaaa gaaagcggcc cggccctggt gaaaccgacc 780 caaaccctga ccctgacctg taccttttcc ggatttagcc tgtccacgtc tggcgttggc gtgggctgga ttcgccagcc gcctgggaaa gccctcgagt ggctggctct gattgattgg 840 900 gatgatgata agtattatag caccagcctg aaaacgcgtc tgaccattag caaagatact tcgaaaaatc aggtggtgct gactatgacc aacatggacc cggtggatac ggccacctat 960 1020 tattgcgcgc gttttgatcc tttttttgat tctttttttg attattgggg ccaaggcacc ctggtgacgg ttagctcagc gtcgaccaaa ggtccaagcg tgtttccgct ggctccgagc 1080 agcaaaagca ccagcggcgg cacggctgcc ctgggctgcc tggttaaaga ttatttcccg 1140 1200 gaaccagtca ccgtgagctg gaacagcggg gcgctgacca gcggcgtgca tacctttccg gcggtgctgc aaagcagcgg cctgtatagc ctgagcagcg ttgtgaccgt gccgagcagc 1260 agcttaggca ctcagaccta tatttgcaac gtgaaccata aaccgagcaa caccaaagtg 1320 1380 gataaaaaag tggaaccgaa aagcgaattc gactataaag atgacgatga caaaggcgcg ccgtggagcc acccgcagtt tgaaaaatga taagcttgac ctgtgaagtg aaaaatggcg 1440 1500 ggggggggtg tacatgaaat tgtaaacgtt aatattttgt taaaattcgc gttaaatttt 1560 tgttaaatca gctcattttt taaccaatag gccgaaatcg gcaaaatccc ttataaatca 1620 aaagaataga ccgagatagg gttgagtgtt gttccagttt ggaacaagag tccactatta 1680 aagaacgtgg actccaacgt caaagggcga aaaaccgtct atcagggcga tggcccacta 1740 Page 13

cgagaaccat	caccctaatc	aagtttttg	gggtcgaggt	gccgtaaagc	actaaatcgg	1800
aaccctaaag	ggagcccccg	atttagagct	tgacggggaa	agccggcgaa	cgtggcgaga	1860
aaggaaggga	agaaagcgaa	aggagcgggc	gctagggcgc	tggcaagtgt	agcggtcacg	1920
ctgcgcgtaa	ccaccacacc	cgccgcgctt	aatgcgccgc	tacagggcgc	gtgctagact	1980
agtgtttaaa	ccggaccggg	ggggggctta	agtgggctgc	aaaacaaaac	ggcctcctgt	2040
caggaagccg	cttttatcgg	gtagcctcac	tgcccgcttt	ccagtcggga	aacctgtcgt	2100
gccagctgca	tcagtgaatc	ggccaacgcg	cggggagagg	cggtttgcgt	attgggagcc	2160
agggtggttt	ttcttttcac	cagtgagacg	ggcaacagct	gattgccctt	caccgcctgg	2220
ccctgagaga	gttgcagcaa	gcggtccacg	ctggtttgcc	ccagcaggcg	aaaatcctgt	2280
ttgatggtgg	tcagcggcgg	gatataacat	gagctgtcct	cggtatcgtc	gtatcccact	2340
accgagatgt	ccgcaccaac	gcgcagcccg	gactcggtaa	tggcacgcat	tgcgcccagc	2400
gccatctgat	cgttggcaac	cagcatcgca	gtgggaacga	tgccctcatt	cagcatttgc	2460
atggtttgtt	gaaaaccgga	catggcactc	cagtcgcctt	cccgttccgc	tatcggctga	2520
atttgattgc	gagtgagata	tttatgccag	ccagccagac	gcagacgcgc	cgagacagaa	2580
cttaatgggc	cagctaacag	cgcgatttgc	tggtggccca	atgcgaccag	atgctccacg	2640
cccagtcgcg	taccgtcctc	atgggagaaa	ataatactgt	tgatgggtgt	ctggtcagag	2700
acatcaagaa	ataacgccgg	aacattagtg	caggcagctt	ccacagcaat	agcatcctgg	2760
tcatccagcg	gatagttaat	aatcagccca	ctgacacgtt	gcgcgagaag	attgtgcacc	2820
gccgctttac	aggcttcgac	gccgcttcgt	tctaccatcg	acacgaccac	gctggcaccc	2880
agttgatcgg	cgcgagattt	aatcgccgcg	acaatttgcg	acggcgcgtg	cagggccaga	2940
ctggaggtgg	caacgccaat	cagcaacgac	tgtttgcccg	ccagttgttg	tgccacgcgg	3000
ttaggaatgt	aattcagctc	cgccatcgcc	gcttccactt	tttcccgcgt	tttcgcagaa	3060
acgtggctgg	cctggttcac	cacgcgggaa	acggtctgat	aagagacacc	ggcatactct	3120
gcgacatcgt	ataacgttac	tggtttcaca	ttcaccaccc	tgaattgact	ctcttccggg	3180
cgctatcatg	ccataccgcg	aaaggttttg	cgccattcga	tgctagccat	gtgagcaaaa	3240
ggccagcaaa	aggccaggaa	ccgtaaaaag	gccgcgttgc	tggcgttttt	ccataggctc	3300
cgccccctg	acgagcatca	caaaaatcga	cgctcaagtc	agaggtggcg	aaacccgaca	3360
ggactataaa	gataccaggc	gtttccccct	ggaagctccc	tcgtgcgctc	tcctgttccg	3420
accctgccgc	ttaccggata	cctgtccgcc	tttctccctt	cgggaagcgt	ggcgctttct	3480
catagctcac	gctgtaggta	tctcagttcg	gtgtaggtcg	ttcgctccaa	gctgggctgt	3540
gtgcacgaac	ccccgttca	gcccgaccgc	tgcgccttat	ccggtaacta	tcgtcttgag	3600

tccaacccgg	taagacacga	cttatcgcca	ctggcagcag		caggattagc	3660
agagcgaggt	atgtaggcgg	tgctacagag	ttcttgaagt	ggtggcctaa	ctacggctac	3720
actagaagaa	cagtatttgg	tatctgcgct	ctgctgtagc	cagttacctt	cggaaaaaga	3780
gttggtagct	cttgatccgg	caaacaaacc	accgctggta	gcggtggttt	ttttgtttgc	3840
aagcagcaga	ttacgcgcag	aaaaaaagga	tctcaagaag	atcctttgat	cttttctacg	3900
gggtctgacg	ctcagtggaa	cgaaaactca	cgttaaggga	ttttggtcag	atctagcacc	3960
aggcgtttaa	gggcaccaat	aactgcctta	aaaaaattac	gccccgccct	gccactcatc	4020
gcagtactgt	tgtaattcat	taagcattct	gccgacatgg	aagccatcac	aaacggcatg	4080
atgaacctga	atcgccagcg	gcatcagcac	cttgtcgcct	tgcgtataat	atttgcccat	4140
agtgaaaacg	ggggcgaaga	agttgtccat	attggctacg	tttaaatcaa	aactggtgaa	4200
actcacccag	ggattggctg	agacgaaaaa	catattctca	ataaaccctt	tagggaaata	4260
ggccaggttt	tcaccgtaac	acgccacatc	ttgcgaatat	atgtgtagaa	actgccggaa	4320
atcgtcgtgg	tattcactcc	agagcgatga	aaacgtttca	gtttgctcat	ggaaaacggt	4380
gtaacaaggg	tgaacactat	cccatatcac	cagctcaccg	tctttcattg	ccatacggaa	4440
ctccgggtga	gcattcatca	ggcgggcaag	aatgtgaata	aaggccggat	aaaacttgtg	4500
cttatttttc	tttacggtct	ttaaaaaggc	cgtaatatcc	agctgaacgg	tctggttata	4560
ggtacattga	gcaactgact	gaaatgcctc	aaaatgttct	ttacgatgcc	attgggatat	4620
atcaacggtg	gtatatccag	tgatttttt	ctccatttta	gcttccttag	ctcctgaaaa	4680
tctcgataac	tcaaaaaata	cgcccggtag	tgatcttatt	tcattatggt	gaaagttgga	4740
acctcacccg	acgtctaatg	tgagttagct	cactcattag	gcaccccagg	ctttacactt	4800
tatgcttccg	gctcgtatgt	tgtgtggaat	tgtgagcgga	taacaatttc	acacaggaaa	4860
cagctatgac	catgattacg	aatitctaga	taacgagggc	aaaaaatgaa	aaagacagct	4920
atcgcgattg	cagtggcact	ggctggtttc	gctaccgtag	cgcaggccga	tatcgtgctg	4980
acccagccgc	cttcagtgag	tggcgcacca	ggtcagcgtg	tgaccatctc	gtgtagcggc	5040
agcagcagca	acattggcag	caactatgtg	agctggtac		•	5079

<210> 8

<211> 5016

<212> DNA

<213> artificial sequence

<220>

<223> synthetic construct

<220> misc\_feature <221> <222> (1)..(5016)<223> synthetic construct <400> gcgacatcgt ataacgttac tggtttcaca ttcaccaccc tgaattgact ctcttccggg 60 cgctatcatg ccataccgcg aaaggttttg cgccattcga tgctagccat gtgagcaaaa 120 180 ggccagcaaa aggccaggaa ccgtaaaaag gccgcgttgc tggcgttttt ccataggctc cgccccctg acgagcatca caaaaatcga cgctcaagtc agaggtggcg aaacccgaca 240 300 ggactataaa gataccaggc gtttccccct ggaagctccc tcgtgcgctc tcctgttccg according transport transport according to the according transport 360 catagctcac gctgtaggta tctcagttcg gtgtaggtcg ttcgctccaa gctgggctgt 420 gtgcacgaac cccccgttca gcccgaccgc tgcgccttat ccggtaacta tcgtcttgag 480 tccaacccgg taagacacga cttatcgcca ctggcagcag ccactggtaa caggattagc 540 600 agagcgaggt atgtaggcgg tgctacagag ttcttgaagt ggtggcctaa ctacggctac actagaagaa cagtatttgg tatctgcgct ctgctgtagc cagttacctt cggaaaaaqa 660 gttggtagct cttgatccgg caaacaaacc accgctggta gcggtggttt ttttgtttgc 720 aagcagcaga ttacgcgcag aaaaaaagga tctcaagaag atcctttgat cttttctacg 780 gggtctgacg ctcagtggaa cgaaaactca cgttaaggga ttttggtcag atctagcacc 840 900 aggcgtttaa gggcaccaat aactgcctta aaaaaattac gccccgccct gccactcatc gcagtactgt tgtaattcat taagcattct gccgacatgg aagccatcac aaacggcatg 960 atgaacctga atcgccagcg gcatcagcac cttgtcgcct tgcgtataat atttgcccat 1020 agtgaaaacg ggggcgaaga agttgtccat attggctacg tttaaatcaa aactggtgaa 1080 actcacccag ggattggctg agacgaaaaa catattctca ataaaccctt tagggaaata 1140 ggccaggttt tcaccgtaac acgccacatc ttgcgaatat atgtgtagaa actgccggaa 1200 atcgtcgtgg tattcactcc agagcgatga aaacgtttca gtttgctcat ggaaaacggt 1260 gtaacaaggg tgaacactat cccatatcac cagctcaccg tctttcattg ccatacggaa 1320 ctccgggtga gcattcatca ggcgggcaag aatgtgaata aaggccggat aaaacttgtg 1380 cttatttttc tttacggtct ttaaaaaggc cgtaatatcc agctgaacgg tctggttata 1440 ggtacattga gcaactgact gaaatgcctc aaaatgttct ttacgatgcc attgggatat 1500 atcaacggtg gtatatccag tgattttttt ctccatttta gcttccttag ctcctgaaaa 1560

1620

tctcgataac tcaaaaaata cgcccggtag tgatcttatt tcattatggt gaaagttgga

acctcacccg	acgtctaatg	tgagttagct	cactcattag	gcaccccagg	ctttacactt	1680
tatgcttccg	gctcgtatgt	tgtgtggaat	tgtgagcgga	taacaatttc	acacaggaaa	1740
cagctatgac	catgattacg	aatttctaga	taacgagggc	aaaaaatgaa	aaagacagct	1800
atcgcgattg	cagtggcact	ggctggtttc	gctaccgtag	cgcaġgccga	tatcgtgctg	1860
acccagccgc	cttcagtgag	tggcgcacca	ggtcagcgtg	tgaccatctc	gtgtagcggc	1920
agcagcagca	acattggcag	caactatgtg	agctggtacc	agcagttgcc	cgggacggcg	1980
ccgaaactgc	tgatttatga	taacaaccag	cgtccctcag	gcgtgccgga	tcgttttagc	2040
ggatccaaaa	gcggcaccag	cgcgagcctt	gcgattacgg	gcctgcaaag	cgaagacgaa	2100
gcggattatt	attgccagag	ctatgaccag	aatgctcttg	ttgaggtgtt	tggcggcggc	2160
acgaagttaa	ccgttcttgg	ccagccgaaa	gccgcaccga	gtgtgacgct	gtttccgccg	2220
agcagcgaag	aattgcaggc	gaacaaagcg	accctggtgt	gcctgattag	cgacttttat	2280
ccgggagccg	tgacagtggc	ctggaaggca	gatagcagcc	ccgtcaaggc	gggagtggag	2340
accaccacac	cctccaaaca	aagcaacaac	aagtacgcgg	ccagcagcta	tctgagcctg	2400
acgcctgagc	agtggaagtc	ccacagaagc	tacagctgcc	aggtcacgca	tgaggggagc	2460
accgtggaaa	aaaccgttgc	gccgactgag	gcctgataag	catgcgtagg	agaaaataaa	2520
atgaaacaaa	gcactattgc	actggcactc	ttaccgttgc	tcttcacccc	tgttaccaaa	2580
gcccaggtgc	aattgaaaga	aagcggcccg	gccctggtga	aaccgaccca	aaccctgacc	2640
ctgacctgta	ccttttccgg	atttagcctg	tccacgtctg	gcgttggcgt	gggctggatt	2700
cgccagccgc	ctgggaaagc	cctcgagtgg	ctggctctga	ttgattggga	tgatgataag	2760
tattatagca	ccagcctgaa	aacgcgtctg	accattagca	aagatacttc	gaaaaatcag	2820
gtggtgctga	ctatgaccaa	catggacccg	gtggatacgg	ccacctatta	ttgcgcgcgt	2880
tttgatcctt	tttttgattc	tttttttgat	tattggggcc	aaggcaccct	ggtgacggtt	2940
agctcagcgt	cgaccaaagg	tccaagcgtg	tttccgctgg	ctccgagcag	caaaagcacc	3000
agcggcggca	cggctgccct	gggctgcctg	gttaaagatt	atttcccgga	accagtcacc	3060
gtgagctgga	acagcggggc	gctgaccagc	ggcgtgcata	cctttccggc	ggtgctgcaa	3120
agcagcggcc	tgtatagcct	gagcagcgtt	gtgaccgtgc	cgagcagcag	cttaggcact	3180
cagacctata	tttgcaacgt	gaaccataaa	ccgagcaaca	ccaaagtgga	taaaaaagtg	3240
gaaccgaaaa	gcgaattccc	aggggggagc	ggaggcgcgc	cgcaccatca	tcaccatcac	3300
tgctgataag	cttgacctgt	gaagtgaaaa	atggcgcaga	ttgtgcgaca	tttttttgt	3360
ctgccgttta	attaaagggg	gggggggcc	ggcctggggg	ggggtgtaca	tgaaattgta	3420
aacgttaata	ttttgttaaa	attcgcgtta	aatttttgtt	aaatcagctc	attttttaac	3480
caataggccg	aaatcggcaa	aatcccttat		aatagaccga 17	gatagggttg	3540

agtgttgttc cagtttggaa	caagagtcca	ctattaaaga	acgtggactc	caacgtcaaa	3600
gggcgaaaaa ccgtctatca	gggcgatggc	ccactacgag	aaccatcacc	ctaatcaagt	3660
tttttggggt cgaggtgccg	taaagcacta	aatcggaacc	ctaaagggag	ccccgattt	3720
agagcttgac ggggaaagcc	ggcgaacgtg	gcgagaaagg	aagggaagaa	agcgaaagga	3780
gcgggcgcta gggcgctggc	aagtgtagcg	gtcacgctgc	gcgtaaccac	cacacccgcc	3840
gcgcttaatg cgccgctaca	gggcgcgtgc	tagactagtg	tttaaaccgg	accggggggg	3900
ggcttaagtg ggctgcaaaa	caaaacggcc	tcctgtcagg	aagccgcttt	tatcgggtag	3960
cctcactgcc cgctttccag	tcgggaaacc	tgtcgtgcca	gctgcatcag	tgaatcggcc	4020
aacgcgcggg gagaggcggt	ttgcgtattg	ggagccaggg	tggtttttct	tttcaccagt	4080
gagacgggca acagctgatt	gcccttcacc	gcctggccct	gagagagttg	cagcaagcgg	4140
tccacgctgg tttgccccag	caggcgaaaa	tcctgtttga	tggtggtcag	cggcgggata	4200
taacatgagc tgtcctcggt	atcgtcgtat	cccactaccg	agatgtccgc	accaacgcgc	4260
agcccggact cggtaatggc	acgcattgcg	cccagcgcca	tctgatcgtt	ggcaaccagc	4320
atcgcagtgg gaacgatgcc	ctcattcagc	atttgcatgg	tttgttgaaa	accggacatg	4380
gcactccagt cgccttcccg	ttccgctatc	ggctgaattt	gattgcgagt	gagatattta	4440
tgccagccag ccagacgcag	acgcgccgag	acagaactta	atgggccagc	taacagcgcg	4500
atttgctggt ggcccaatgc	gaccagatgc	tccacgccca	gtcgcgtacc	gtcctcatgg	4560
gagaaaataa tactgttgat	gggtgtctgg	tcagagacat	caagaaataa	cgccggaaca	4620
ttagtgcagg cagcttccac	agcaatagca	tcctggtcat	ccagcggata	gttaataatc	4680
agcccactga cacgttgcgc	gagaagattg	tgcaccgccg	ctttacaggc	ttcgacgccg	4740
cttcgttcta ccatcgacac	gaccacgctg	gcacccagtt	gatcggcgcg	agatttaatc	4800
gccgcgacaa tttgcgacgg	cgcgtgcagg	gccagactgg	aggtggcaac	gccaatcagc	4860
aacgactgtt tgcccgccag	ttgttgtgcc	acgcggttag	gaatgtaatt	cagctccgcc	4920
atcgccgctt ccactttttc	ccgcgttttc	gcagaaacgt	ggctggcctg	gttcaccacg	4980
cgggaaacgg tctgataaga	gacaccggca	tactct			5016

<sup>&</sup>lt;210> 9

<sup>&</sup>lt;211> 5729

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> artificial sequence

<sup>&</sup>lt;220>

<sup>&</sup>lt;223> synthetic construct

<220> <221> misc\_feature <222> (1)..(5729)<223> synthetic construct <400> caagctgtga ccgtctccgg gagctgcatg tgtcagaggt tttcaccgtc atcaccgaaa 60 cgcgcgaggc agctgcggta aagctcatca gcgtggtcgt gaagcgattc acagatgtct 120 180 gcctgttcat ccgcgtccag ctcgttgagt ttctccagaa gcgttaatgt ctggcttctg ataaagcggg ccatgttaag ggcggttttt tcctgtttgg tcactgatgc ctccgtgtaa 240 300 gggggatttc tgttcatggg ggtaatgata ccgatgaaac gagagaggat gctcacgata cgggttactg atgatgaaca tgcccggtta ctggaacgtt gtgagggtaa acaactggcg 360 420 gtatggatgc ggcgggacca gagaaaaatc actcagggtc aatgccagcg cttcgttaat 480 acagatgtag gtgttccaca gggtagccag cagcatcctg cgatgcagat ccggaacata atggtgcagg gcgctgactt ccgcgtttcc agactttacg aaacacggaa accgaagacc 540 attcatgttg ttgctcaggt cgcagacgtt ttgcagcagc agtcgcttca cgttcgctcg 600 660 cgtatcggtg attcattctg ctaaccagta aggcaacccc gccagcctag ccgggtcctc 720 aacgacagga gcacgatcat gcgcacccgt ggccaggacc caacgctgcc cgagatgcgc cgcgtgcggc tgctggagat ggcggacgcg atggatatgt tctgccaagg gttggtttgc 780 840 gcattcacag ttctccgcaa gaattgattg gctccaattc ttggagtggt gaatccgtta 900 gcgaggtgcc gccggcttcc attcaggtcg aggtggcccg gctccatgca ccgcgacgca acgcggggag gcagacaagg tatagggcgg cgcctacaat ccatgccaac ccgttccatg 960 1020 tgctcgccga ggcggcataa atcgccgtga cgatcagcgg tccagtgatc gaagttaggc 1080 tggtaagagc cgcgagcgat ccttgaagct gtccctgatg gtcgtcatct acctgcctgg 1140 acagcatggc ctgcaacgcg ggcatcccga tgccgccgga agcgagaaga atcataatgg ggaaggccat ccagcctcgc gtcgcgaacg ccagcaagac gtagcccagc gcgtcggccg 1200 ccatgccggc gataatggcc tgcttctcgc cgaaacgttt ggtggcggga ccagtgacga 1260 1320 aggettgage gagggegtge aagatteega atacegeaag egacaggeeg ateategteg 1380 cgctccagcg aaagcggtcc tcgccgaaaa tgacccagag cgctgccggc acctgtccta cgagttgcat gataaagaag acagtcataa gtgcggcgac gatagtcatg ccccgcgccc 1440 1500 accggaagga gctgactggg ttgaaggctc tcaagggcat cggtcgacgc tctcccttat gcgactcctg cattaggaag cagcccagta gtaggttgag gccgttgagc accgccgccg 1560 caaggaatgg tgcatgcaag gagatggcgc ccaacagtcc cccggccacg gggcctgcca 1620 Page 19

ccatacccac	gccgaaacaa	gcgctcatga	gcccgaagtg	gcgagcccga	tcttccccat	1680
cggtgatgtc	ggcgatatag	gcgccagcaa	ccgcacctgt	ggcgccggtg	atgccggcca	1740
cgatgcgtcc	ggcgtagagg	atccacagga	cgggtgtggt	cgccatgatc	gcgtagtcga	1800
tagtggctcc	aagtagcgaa	gcgagcagga	ctgggcggcg	gccaaagcgg	tcggacagtg	1860
ctccgagaac	gggtgcgcat	agaaattgca	tcaacgcata	tagcgctagc	ctgaggccag	1920
tttgctcagg	ctctccccgt	ggaggtaata	attgctcgac	cgataaaagc	ggcttcctga	1980
caggaggccg	ttttgttttg	cagcccacct	caacgcaatt	aatgtgagtt	agctcactca	2040
ttaggcaccc	caggctttac	actttatgct	tccggctcgt	atgttgtgtg	gaattgtgag	2100
cggataacaa	tttcacacag	gaaacagcta	tgaccatgat	tacgaatttc	tagataacga	2160
gggcaaaaaa	tgaaaaagac	agctatcgcg	attgcagtgg	cactggctgg	tttcgctacc	2220
gtagcgcagg	ccgactactg	cgatatcgaa	ttcgcagaaa	cagttgaaag	ttgtttagca	2280
aaaccccata	cagaaaattc	atttactaac	gtctggaaag	acgacaaaac	tttagatcgt	2340
tacgctaact	atgagggctg	tctgtggaat	gctacaggcg	ttgtagtttg	tactggtgac	2400
gaaactcagt	gttacggtac	atgggttcct	attgggcttg	ctatccctga	aaatgagggt	2460
ggtggctctg	agggtggcgg	ttctgagggt	ggcggctctg	agggtggcgg	tactaaacct	2520
cctgagtacg	gtgatacacc	tattccgggc	tatacttata	tcaaccctct	cgacggcact	2580
tatccgcctg	gtactgagca	aaaccccgct	aatcctaatc	cttctcttga	ggagtctcag	2640
cctcttaata	ctttcatgtt	tcagaataat	aggttccgaa	ataggcaggg	ggcattaact	2700
gtttatacgg	gcactgttac	tcaaggcact	gaccccgtta	aaacttatta	ccagtacact	2760
cctgtatcat	caaaagccat	gtatgacgct	tactggaacg	gtaaattcag	agactgcgct	2820
ttccattctg	gctttaatga	ggatccattc	gtttgtgaat	atcaaggcca	atcgtctgac	2880
ctgcctcaac	ctcctgtcaa	tgctggcggc	ggctctggtg	gtggttctgg	tggcggctct	2940
gagggtggcg	gctctgaggg	tggcggttct	gagggtggcg	gctctgaggg	tggcggttcc	3000
ggtggcggct	ccggttccgg	tgattttgat	tatgaaaaaa	tggcaaacgc	taataagggg	3060
gctatgaccg	aaaatgccga	tgaaaacgcg	ctacagtctg	acgctaaagg	caaacttgat	3120
tctgtcgcta	ctgattacgg	tgctgctatc	gatggtttca	ttggtgacgt	ttccggcctt	3180
gctaatggta	atggtgctac	tggtgatttt	gctggctcta	attcccaaat	ggctcaagtc	3240
ggtgacggtg	ataattcacc	tttaatgaat	aatttccgtc	aatatttacc	ttctttgcct	3300
cagtcggttg	aatgtcgccc	ttatgtcttt	ggcgctggta	aaccatatga	attttctatt	3360
gattgtgaca	aaataaactt	attccgtggt	gtctttgcgt	ttcttttata	tgttgccacc	3420
tttatgtatg	tattttcgac	gtttgctaac	atactgcgta	ataaggagtc	ttaagcttat	3480

			37629.	TVT		
cgatgataag	ctgtcaaaca	tgagaattct			gatacgccta	3540
tttttatagg	ttaatgtcat	gataataatg	gtttcttaga	cgtcaggtgg	cacttttcgg	3600
ggaaatgtgc	gcggaacccc	tatttgttta	tttttctaaa	tacattcaaa	tatgtatccg	3660
ctcatgagac	aataaccctg	ataaatgctt	caataatatt	gaaaaaggaa	gagtatgagt	3720
attcaacatt	tccgtgtcgc	ccttattccc	ttttttgcgg	cattttgcct	tcctgttttt	3780
gctcacccag	aaacgctggt	gaaagtaaaa	gatgctgaag	atcagttggg	tgcacgagtg	3840
ggttacatcg	aactggatct	caacagcggt	aagatccttg	agagttttcg	ccccgaagaa	3900
cgttttccaa	tgatgagcac	ttttaaagtt	ctgctatgtg	gcgcggtatt	atcccgtgtt	3960
gacgccgggc	aagagcaact	cggtcgccgc	atacactatt	ctcagaatga	cttggttgag	4020
tactcaccag	tcacagaaaa	gcatcttacg	gatggcatga	cagtaagaga	attatgcagt	4080
gctgccataa	ccatgagtga	taacactgcg	gccaacttac	ttctgacaac	gatcggagga	4140
ccgaaggagc	taaccgcttt	tttgcacaac	atgggggatc	atgtaactcg	ccttgatcgt	4200
tgggaaccgg	agctgaatga	agccatacca	aacgacgagc	gtgacaccac	gatgcctgca	4260
gcaatggcaa	caacgttgcg	caaactatta	actggcgaac	tacttactct	agcttcccgg	4320
caacaattaa	tagactggat	ggaggcggat	aaagttgcag	gaccacttct	gcgctcggcc	4380
cttccggctg	gctggtttat	tgctgataaa	tctggagccg	gtgagcgtgg	gtctcgcggt	4440
atcattgcag	cactggggcc	agatggtaag	ccctcccgta	tcgtagttat	ctacacgacg	4500
gggagtcagg	caactatgga	tgaacgaaat	agacagatcg	ctgagatagg	tgcctcactg	4560
attaagcatt	ggtaactgtc	agaccaagtt	tactcatata	tactttagat	tgatttaaaa	4620
cttcattttt	aatttaaaag	gatctaggtg	aagatccttt	ttgataatct	catgaccaaa	4680
atcccttaac	gtgagttttc	gttccactga	gcgtcagacc	ccgtagaaaa	gatcaaagga	4740
tcttcttgag	atcctttttt	tctgcgcgta	atctgctgct	tgcaaacaaa	aaaaccaccg	4800
ctaccagcgg	tggtttgttt	gccggatcaa	gagctaccaa	ctctttttcc	gaaggtaact	4860
ggcttcagca	gagcgcagat	accaaatact	gtccttctag	tgtagccgta	gttaggccac	4920
cacttcaaga	actctgtagc	accgcctaca	tacctcgctc	tgctaatcct	gttaccagtg	4980
gctgctgcca	gtggcgataa	gtcgtgtctt	accgggttgg	actcaagacg	atagttaccg	5040
gataaggcgc	agcggtcggg	ctgaacgggg	ggttcgtgca	cacagcccag	cttggagcga	5100
acgacctaca	ccgaactgag	atacctacag	cgtgagctat	gagaaagcgc	cacgcttccc	5160
gaagggagaa	aggcggacag	gtatccggta	agcggcaggg	tcggaacagg	agagcgcacg	5220
agggagcttc	cagggggaaa	cgcctggtat	ctttatagtc	ctgtcgggtt	tcgccacctc	5280
tgacttgagc	gtcgattttt	gtgatgctcg	tcaggggggc	ggagcctatg	gaaaaacgcc	5340
agcaacgcgg	cctttttacg	gttcctggcc	ttttgctggc Page 2	cttttgctca 21	catgttcttt	5400

cctgcgttat	cccctgattc	tgtggataac	cgtattaccg	cctttgagtg	agctgatacc	5460
gctcgccgca	gccgaacgac	cgagcgcagc	gagtcagtga	gcgaggaagc	ggaagagcgc	5520
ctgatgcggt	attttctcct	tacgcatctg	tgcggtattt	cacaccgcat	atggtgcact	5580
ctcagtacaa	tctgctctga	tgccgcatag	ttaagccagt	atacactccg	ctatcgctac	5640
gtgactgggt	catggctgcg	ccccgacacc	cgccaacacc	cgctgacgcg	ccctgacggg	5700
cttgtctgct	cccggcatcc	gcttacaga				5729